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1: Ohlmann T, Lopez-Lastra M, Darlix JL. Related Arti

An internal ribosome entry segment promotes translation of the simian immunodeficiency virus genomic RNA.
J Biol Chem. 2000 Apr 21;275(16):11899-906.
PMID: 10766817; UI: 20229790

2: Lopez-Lastra M, Ulrici S, Gabus C, Darlix JL. Related Arti

Identification of an internal ribosome entry segment in the 5' region of the mo VL30 retrotransposon and its use in the development of retroviral vectors.
J Virol. 1999 Oct;73(10):8393-402.
PMID: 10482590; UI: 99412355

3: Derrington EA, Lopez-Lastra M, Chapel-Fernandez S, Cosset FL, Belin MF, Rudkin BB, Darlix JL. Related Arti

Retroviral vectors for the expression of two genes in human multipotent neura precursors and their differentiated neuronal and glial progeny.
Hum Gene Ther. 1999 May 1;10(7):1129-38.
PMID: 10340545; UI: 99270370

4: Lopez-Lastra M, Gabus C, Darlix JL. Related Arti

Characterization of an internal ribosomal entry segment within the 5' leader of avian reticuloendotheliosis virus type A RNA and development of novel MLV-REV-based retroviral vectors.
Hum Gene Ther. 1997 Nov 1;8(16):1855-65.
PMID: 9382952; UI: 98043300

5: Gonzalez MP, Sanchez X, Ganga MA, Lopez-Lastra M, Jashes M, Sandino AM. Related Arti

Detection of the infectious hematopoietic necrosis virus directly from infected fish tissues by dot blot hybridization with a non-radioactive probe.
J Virol Methods. 1997 May;65(2):273-9.
PMID: 9186951; UI: 97330492

6: Rosselot G, Lopez-Lastra M, McMurtry JP. Related Arti

Determination of gizzerosine activity in fish meal with a homologous radioimmunoassay.
Poult Sci. 1996 Jul;75(7):873-80.
PMID: 8966176; UI: 96398384

☐ 7: Jashes M, Gonzalez M, Lopez-Lastra M, De Clercq E, Sandino A. Related Arti

Inhibitors of infectious pancreatic necrosis virus (IPNV) replication.
Antiviral Res. 1996 Mar;29(2-3):309-12.
PMID: 8739609; UI: 96316007

☐ 8: Ganga MA, Gonzalez MP, Lopez-Lastra M, Sandino AM. Related Arti

Polyacrylamide gel electrophoresis of viral genomic RNA as a diagnostic meth for infectious pancreatic necrosis virus detection.
J Virol Methods. 1994 Dec;50(1-3):227-36.
PMID: 7714046; UI: 95229763

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LEADERS.DWPI,TDBD,EPAB,JPAB,USPT.	2816
(5 AND (UNTRANSLATED ADJ LEADER)).USPT,JPAB,EPAB,DWPI,TDBD.	12

Database: US Patents Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Refine Search: L5 and (untranslated leader) Clear

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DB Name	Query	Hit Count	Set Name
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☐ 1. Document ID: US 6017761 A

L4: Entry 1 of 4 File: USPT Jan 25, 2000

US-PAT-NO: 6017761
DOCUMENT-IDENTIFIER: US 6017761 A
TITLE: Method for obtaining retroviral packaging cell lines producing high transducing efficiency retroviral supernatant

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6013517 A

L4: Entry 2 of 4 File: USPT Jan 11, 2000

US-PAT-NO: 6013517
DOCUMENT-IDENTIFIER: US 6013517 A
TITLE: Crossless retroviral vectors

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 5932467 A

L4: Entry 3 of 4 File: USPT Aug 3, 1999

US-PAT-NO: 5932467
DOCUMENT-IDENTIFIER: US 5932467 A
TITLE: Retroviral vectors pseudotyped with SRV-3 envelope glycoprotein sequences

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 4. Document ID: EP 918875 A1, FR 2762615 A1, WO 9849334 A1, AU 9875365 A

L4: Entry 4 of 4 File: DWPI Jun 2, 1999

DERWENT-ACC-NO: 1999-037487
DERWENT-WEEK: 199926

TITLE: Expression vectors containing IRES and/or encapsidation enhancer - derived from type C retrovirus other than FMLV and MoMLV

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

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Term	Documents
TYPE.DWPI,TDBD,EPAB,JPAB,USPT.	3089325
TYPES.DWPI,TDBD,EPAB,JPAB,USPT.	793606
C.DWPI,TDBD,EPAB,JPAB,USPT.	10322273
CS.DWPI,TDBD,EPAB,JPAB,USPT.	189339
RETROVIRUS.DWPI,TDBD,EPAB,JPAB,USPT.	6823
RETROVIRUSES.DWPI,TDBD,EPAB,JPAB,USPT.	6470
(3 AND ((TYPE ADJ C) ADJ RETROVIRUS)).USPT,JPAB,EPAB,DWPI,TDBD.	4

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File   1:ERIC  1966-2000/Jul 26
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      Set  Items  Description
      ---  -----  -----------
?b 155,5, 73
      '15aug00 09:53:30 User259876 Session D100.1
            $0.40    0.115 DialUnits File1
     $0.40  Estimated cost File1
     $0.01  TYMNET
     $0.41  Estimated cost this search
     $0.41  Estimated total session cost   0.115 DialUnits
```

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SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-2000/Oct W1
         (c) format only 2000 Dialog Corporation
  File   5:Biosis Previews(R)  1969-2000/Aug W2
         (c) 2000 BIOSIS
  File  73:EMBASE  1974-2000/Jul W3
         (c) 2000 Elsevier Science B.V.
*File  73: There is no data missing. UDs are being adjusted
to reflect the current months data.

      Set  Items  Description
      ---  -----  -----------
?s (type (w) C (w) retrovirus)
         1602512  TYPE
         2034818  C
           29982  RETROVIRUS
      S1     483  (TYPE (W) C (W) RETROVIRUS)
?s (IRES or (internal (w) ribosome (w) entry (w) site))
            1313  IRES
          807888  INTERNAL
           42380  RIBOSOME
          115032  ENTRY
          866074  SITE
             790  INTERNAL(W)RIBOSOME(W)ENTRY(W)SITE
      S2    1616  (IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
?s (vector? or (retroviral (w) vector?))
          212651  VECTOR?
           26432  RETROVIRAL
          212651  VECTOR?
            8542  RETROVIRAL(W)VECTOR?
      S3  212651  (VECTOR? OR (RETROVIRAL (W) VECTOR?))
?s s1 and s2 and s3
             483  S1
            1616  S2
          212651  S3
      S4       0  S1 AND S2 AND S3
?s s1 and s2
             483  S1
            1616  S2
      S5       0  S1 AND S2
?s s1 and s3
             483  S1
          212651  S3
      S6      14  S1 AND S3
?rd
...completed examining records
      S7       6  RD (unique items)
?t s7/3,k/all

 7/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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09303800   98001324
 Identification of envelope protein residues required for the expanded
host range of 10A1 murine leukemia virus.
  Han JY; Cannon PM; Lai KM; Zhao Y; Eiden MV; Anderson WF
  Gene Therapy Laboratories, Norris Cancer Center, University of Southern
California School of Medicine, Los Angeles 90033, USA.
  Journal of virology (UNITED STATES)  Nov 1997,  71 (11) p8103-8,  ISSN
0022-538X  Journal Code: KCV
  Contract/Grant No.: CA59318-04, CA, NCI
  Languages: ENGLISH
  Document type: JOURNAL ARTICLE
```

The 10A1 murine leukemia virus (MuLV) is a recombinant *type* *C* *retrovirus* isolated from a mouse infected with amphotropic MuLV (A-MuLV). 10A1 and A-MuLV have 91% amino acid identity in their envelope proteins yet display different host ranges. For example, CHO-K1 cells are resistant to A-MuLV but susceptible to infection by 10A1. We have now determined that *retroviral* *vectors* bearing altered A-MuLV envelope proteins containing 10A1-derived residues at positions 71 (A71G), 74 (Q74K), and 139 (V139M) transduce CHO-K1 cells at efficiencies similar to those achieved with 10A1 enveloped *vectors*. A-MuLV enveloped *retroviral* *vectors* with these three 10A1 residues were also able to transduce A-MuLV-infected NIH 3T3 cells. This observation is consistent with the ability of *vectors* bearing this altered A-MuLV envelope protein to recognize the 10A1-specific receptor present on NIH 3T3 cells and supports the possibility that residues at...

7/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08434812 96042132
A novel mechanism of retrovirus inactivation in human serum mediated by anti-alpha-galactosyl natural antibody.
Rother RP; Fodor WL; Springhorn JP; Birks CW; Setter E; Sandrin MS; Squinto SP; Rollins SA
Department of Molecular Development, Alexion Pharmaceuticals Inc., New Haven, Connecticut 06511, USA.
Journal of experimental medicine (UNITED STATES) Nov 1 1995, 182 (5) p1345-55, ISSN 0022-1007 Journal Code: I2V
Languages: ENGLISH
Document type: JOURNAL ARTICLE

... to the viral envelope protein p15E, which leads to classical pathway-mediated virolysis in human serum. Here we report a novel mechanism of complement-mediated *type* *C* *retrovirus* inactivation that is initiated by the binding of "natural antibody" [Ab] (anti-alpha-galactosyl Ab) to the carbohydrate epitope Gal alpha 1-3Gal beta 1...

... express the alpha-galactosyl epitope to humans and to other Old World primates. Further, these data provide a mechanism for the generation of complement-resistant *retroviral* *vectors* for in vivo gene therapy applications where exposure to human complement is unavoidable.

7/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08254496 95190970
Characterization of an infectious molecular clone of human T-cell leukemia virus type I.
Zhao TM; Robinson MA; Bowers FS; Kindt TJ
Laboratory of Immunogenetics, NIAID Twinbrook II Facility, Rockville, Maryland 20852.
Journal of virology (UNITED STATES) Apr 1995, 69 (4) p2024-30, ISSN 0022-538X Journal Code: KCV
Languages: ENGLISH
Document type: JOURNAL ARTICLE

... the env gene. A genomic DNA fragment containing the intact HTLV-I provirus was cloned into bacteriophage lambda (K30 phi) and subcloned into a plasmid *vector* (K30p). HTLV-I p24gag protein was detected in culture supernatants of human and rabbit T-cell and fibroblast lines transfected with these clones, at levels...

...than 24 months. Biologic characterization of this cell line revealed the presence of integrated HTLV-I provirus, spliced and unspliced mRNA transcripts, and typical extracellular *type* *C* *retrovirus* particles. As expected, these virus particles contained HTLV-I RNA and reverse transcriptase activity. The transfected cells also expressed surface major histocompatibility complex class II...

7/3,K/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08052281 95056026
***Type* *C* *retrovirus* inactivation by human complement is determined by both the viral genome and the producer cell.**
Takeuchi Y; Cosset FL; Lachmann PJ; Okada H; Weiss RA; Collins MK
Chester Beatty Laboratories, Institute of Cancer Research, London, United Kingdom.
Journal of virology (UNITED STATES) Dec 1994, 68 (12) p8001-7, ISSN 0022-538X Journal Code: KCV
Languages: ENGLISH
Document type: JOURNAL ARTICLE

***Type* *C* *retrovirus* inactivation by human complement is determined by both the viral genome and the producer cell.**
The inactivation of type C retroviruses by human serum may be a considerable impediment to the use of *retroviral* *vectors* in vivo for gene therapy. Here we show that virus inactivation is dependent both on the virus and on the cell line used to produce...

7/3,K/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04371683 84167865
[Regions of human genome containing analogs of oncogenes and retrovirus genes. I. A family of c-mos genes and unusual structure of ORA-gp5 locus]
Uchastki genoma cheloveka, soderzhashchie analogi onkogenov i genov retrovirusov. I. Semeistvo genov c-mos i neobychnaia struktura lokusa ORA-gp5.
Zabarovskii ER; Chumakov IM; Prasolov VS; Kiselev LL
Molekuliarnaia biologiia (USSR) Jan-Feb 1984, 18 (1) p60-82, ISSN 0026-8984 Journal Code: NGX
Languages: RUSSIAN Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract

... the cloned region of the human genome designated as ORA-gp5 was constructed. The sequences of three different genetical elements v-mos-related oncogene, mammalian *type* *C* *retrovirus* and Alu type repeat are interspersed in this structure. The hypothesis concerning the probable origin of this locus has been proposed. The mosaical structure of ...
; Bacteriophage lambda--Genetics--GE; Chromosome Mapping; Cloning, Molecular; DNA--Analysis--AN; DNA--Genetics--GE; DNA, Viral--Analysis--AN; DNA, Viral--Genetics--GE; Genetic *Vectors*; Mice; Plasmids; Rats; Species Specificity
Chemical Name: DNA, Viral; (Genetic *Vectors*; (Plasmids; (DNA

7/3,K/6 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06504993 BIOSIS NO.: 000037077009
MOLECULAR CLONING OF HIGHLY ONCOGENIC AMPHOTROPIC WILD MOUSE *TYPE* *C*

***RETROVIRUS* 10A1**
AUTHOR: EHSANI A; PAL B K
AUTHOR ADDRESS: BIOL. SCI. DEP., CALIF. STATE POLYTECH. UNIV., POMONA, CA 91768.
JOURNAL: 89TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, NEW ORLEANS, LOUISIANA, USA, MAY 14-18, 1989. ABSTR ANNU MEET AM SOC MICROBIOL 89 (0). 1989. 392.
CODEN: ASMAC
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH

MOLECULAR CLONING OF HIGHLY ONCOGENIC AMPHOTROPIC WILD MOUSE *TYPE* *C* *RETROVIRUS* 10A1
DESCRIPTORS: ABSTRACT PLASMIC *VECTOR* LINEARIZATION RECOMBINANT PLASMID RESTRICTION ENZYME SITE COLONY HYBRIDIZATION HIRT TECHNIQUE DNA EXTRACTION

```
?ds

Set     Items   Description
S1        483   (TYPE (W) C (W) RETROVIRUS)
S2       1616   (IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
S3     212651   (VECTOR? OR (RETROVIRAL (W) VECTOR?))
S4          0   S1 AND S2 AND S3
S5          0   S1 AND S2
S6         14   S1 AND S3
S7          6   RD (unique items)
?s (5' (w) (end or leader))
>>>Warning: unmatched quote found
             57  5'
         560760  END
          18150  LEADER
      S8      0  (5' (W) (END OR LEADER))
?s (5'-end) or (5'-leader)
      S9      0  (5'-END) OR (5'-LEADER)
?s s2 and s3
           1616  S2
         212651  S3
     S10    433  S2 AND S3
?s s10 and (REV or MSV or MHV or MEV or FMOV or AMLV or MEELV or SFFV or RASV or FLV or
 FSV or EFLV or SSV or GALV or BAEV)
            433  S10
          10908  REV
           4098  MSV
           2622  MHV
          11384  MEV
              0  FMOV
              4  AMLV
              0  MEELV
            586  SFFV
             83  RASV
            573  FLV
            244  FSV
              1  EFLV
            572  SSV
            364  GALV
            196  BAEV
     S11     11  S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR
                 MEELV OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR
                 GALV OR BAEV)
?rd
...completed examining records
     S12      6  RD (unique items)
?t s12/all
>>>'ALL' not allowed as format type
?t s12/3,k/all
```

12/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10091945 98043300
Characterization f an internal ribosomal entry segment within the 5' leader of avian reticuloendotheliosis virus type A RNA and development of novel MLV-*REV*-based *retroviral* *vectors*.
Lopez-Lastra M; Gabus C; Darlix JL
LaboRetro, Unite de Virologie Humaine INSERM U412, Ecole Normale Superieure de Lyon, France.
Human gene therapy (UNITED STATES) Nov 1 1997, 8 (16) p1855-65, ISSN 1043-0342 Journal Code: A12
Languages: ENGLISH
Document type: JOURNAL ARTICLE

Characterization of an internal ribosomal entry segment within the 5' leader of avian reticuloendotheliosis virus type A RNA and development of novel MLV-*REV*-based *retroviral* *vectors*.
... al., 1995b). These data, together with structural homology studies (Koning et al., 1992), prompted us to undertake a search for new internal ribosome entry segment (*IRES*) of retroviral origin. Here we describe an *IRES* element within the 5' leader of avian reticuloendotheliosis virus type A (*REV*-A) genomic RNA. Data show that the *REV*-A 5' *IRES* element maps downstream of the packaging/dimerization (E/DLS) sequence (Watanabe and Temin, 1982; Darlix et al., 1992) and the minimal *IRES* sequence appears to be within a 129 nt fragment (nucleotides 452-580) of the 5' leader, immediately upstream of the gag AUG codon. The *REV*-A *IRES* has been successfully utilized in the construction of novel high titer MLV-based *retroviral* *vectors*, containing one or more *IRES* elements of retroviral origin. These retroviral constructs, which represent a starting point for the design of novel *vectors* suitable for gene therapy, are also of interest as a model system of internal translation initiation and its possible regulation during development, cancer, or virus...
Descriptors: Genetic *Vectors*--Genetics--GE; *Leukemia Viruses, Murine --Genetics--GE; *Reticuloendotheliosis Virus, Avian--Genetics--GE; *RNA, Viral--Genetics--GE; *Transfection; *Translation, Genetic
Chemical Name: Kanamycin Kinase; (Alkaline Phosphatase; (Endopeptidases; (leader proteinase, foot-and-mouth disease virus; (Genetic *Vectors*; (Polyenes; (Recombinant Proteins; (RNA, recombinant; (RNA, Messenger; (RNA, Viral; (Sirolimus; (RNA

12/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

09850333 99121773
Inducible expression of herpes simplex virus thymidine kinase from a bicistronic HIV1 *vector*.
Marcello A; Giaretta I
Institute of Microbiology, University of Padova, Italy.
Research in virology (FRANCE) Nov-Dec 1998, 149 (6) p419-31, ISSN 0923-2516 Journal Code: R7E
Languages: ENGLISH
Document type: JOURNAL ARTICLE

Inducible expression of herpes simplex virus thymidine kinase from a bicistronic HIV1 *vector*.
... elicited by the HIV1 transcription apparatus itself, offers a potentially useful approach for gene therapy of the acquired immunodeficiency syndrome. A replication-defective lentiviral HIV1 *vector* (HYIRES-TK) was designed to carry both the hygromycin (Hy) phosphotransferase gene for positive selection and the thymidine kinase (TK) gene of herpes simplex virus driven by the viral long terminal repeat (LTR). The *internal* *ribosome* *entry* *site* (*IRES*) from

encephalomyocarditis virus was placed between the two genes for their efficient simultaneous translation. Transient expression of active TK into transfected COS-1 cells was shown to be induced by Tat and *Rev* over a detectable basal level. By providing the missing viral proteins in trans, recombinant viruses were generated and used to transduce Jurkat cells. The Hy...

... in the presence of 10 microM ACV, a concentration non-toxic for the uninfected cells, resulted in increased killing of cells transduced with the HY-*IRES*-TK *vector* . These data indicate that two genes can be expressed from the viral LTR in the context of an HIV1 *vector*, with the aid of an *IRES* sequence. The expression is inducible by the HIV proteins Tat and *Rev* and it is possible to specifically kill infected cells with subtoxic concentrations of drug. To decrease the sensitivity of the transduced cells towards GCV, a variant *vector* expressing a truncated TK was constructed. The truncated version was expressed at levels similar to those of wild-type TK but induced sensitivity towards GCV...

Descriptors: Gene Expression Regulation, Enzymologic; *Gene Expression Regulation, Viral; *Genetic *Vectors*; *Herpesvirus 1, Human--Enzymology --EN; *HIV-1; *Thymidine Kinase--Genetics--GE; Acyclovir--Pharmacology--PD; Cell Transformation, Viral; Cytotoxicity, Immunologic; COS Cells; Ganciclovir--Pharmacology--PD; Gene Products, *rev*--Metabolism--ME; Gene Products, tat--Metabolism--ME; Genes, Structural; Jurkat Cells

Chemical Name: Thymidine Kinase; (Gene Products, *rev*; (Gene Products, tat; (Genetic *Vectors*; (Acyclovir; (Ganciclovir

12/3,K/3 (Item 3 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

09734688 99008312

Poor expression of MDR1 transgene in HeLa cells by bicistronic Moloney murine leukemia virus-based *vector*.

Zaboikin MM; Schuening FG

Bone Marrow Transplant Division, University of Wisconsin, Madison 53792, USA.

Human gene therapy (UNITED STATES) Oct 10 1998, 9 (15) p2263-75, ISSN 1043-0342 Journal Code: A12

Contract/Grant No.: DK48265, DK, NIDDK

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Poor expression of MDR1 transgene in HeLa cells by bicistronic Moloney murine leukemia virus-based *vector*.

... opportunity to increase the number of transduced marrow cells, expressing the therapeutic gene, by in vivo selection for MDR1. We have used an Lg-MDR1-*IRES*-neo (LgMIN) *retroviral* *vector*, containing MDR1 and neo genes, separated by the EMCV *IRES*. Human HeLa or canine CTAC cells, transduced with *GALV* env pseudotyped LgMIN at an MOI of less than 0.01 to ensure 1 proviral copy/genome, were selected with either G418 for neo expression...

... resistance to colchicine and a 2-fold higher resistance to Taxol compared with nontransduced cells. About 23% of the transduced cell population did not express *vector* -derived P-glycoprotein (P-gp) as detected by anti-human P-gp MAb MRK-16. This could explain the difference in viral titers obtained on CTAC cells but not that obtained on HeLa cells. The *vector* -mediated increase in expression of P-gp was about 20-fold higher in CTAC cells as compared with HeLa cells. These results indicated suppression of expression of *vector* -derived MDR1 in HeLa cells, in contrast with CTAC cells. To investigate further the possible reasons for this difference, genomic DNA was isolated from the...

... concentration of G418 (3 mg/ml), the aberrant forms were detected at an increased frequency of about 50% of colonies tested. These results indicate that *vector*-derived MDR1 is a poor selective marker in HeLa cells but not

in CTAC cells and that deletions, which inactivated the MDR1 gene in a bicistronic Mo-MuLV *vector* , may provide an advantage for expression of the second transgene in HeLa cells.
Descriptors: Gene Expression; *Genes, MDR--Genetics--GE; *Genetic *Vectors*; *Moloney Leukemia Virus--Genetics--GE; *Transgenes
Chemical Name: Genetic *Vectors*; (P-Glycoprotein

12/3,K/4 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11339294 BIOSIS NO.: 199800120626
Inhibition of HIV-1 replication by combined expression of gag dominant negative mutant and a human ribonuclease in a tightly controlled HIV-1 inducible *vector*.
AUTHOR: Cara A; Rybak S M; Newton D L; Crowley R; Rottschafer S E; Gusella M S Jr Reitzand G L(a)
AUTHOR ADDRESS: (a)Lab. Biochem. Physiol., Build 567, Room 152, Frederick NCI-Frederick Cancer Res. Dev. Center, Fr**USA
1998
JOURNAL: Gene Therapy 5 (1):p65-75 Jan., 1998
ISSN: 0969-7128
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

Inhibition of HIV-1 replication by combined expression of gag dominant negative mutant and a human ribonuclease in a tightly controlled HIV-1 inducible *vector*.

ABSTRACT: An HIV-1-based expression *vector* has been constructed that produces protective genes tightly regulated by HIV-1 Tat and *Rev* proteins. The *vector* contains either a single protective gene (HIV-1 gag dominant negative mutant (delta-gag)) or a combination of two different protective genes (delta-gag and...

...dicistronic mRNA. After stable transfection of CEM T cells and following challenge with HIV-1, viral production was completely inhibited in cells transduced with the *vector* producing both delta-gag and EDN and delayed in cells producing delta-gag alone. In addition, contransfection of HeLa-Tat cells with an infectious HIV-1 molecular clone and either protective *vector* demonstrated that the HV-1 packaging signals present in the constructs were functional and allowed the efficient assembly of the protective RNAs into HIV-1...
DESCRIPTORS:
CHEMICALS & BIOCHEMICALS: ...*Rev* proteins
MISCELLANEOUS TERMS: ...human immunodeficiency virus-inducible *vector* ; *internal* *ribosome* *entry* *site*;

12/3,K/5 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

10817696 BIOSIS NO.: 199799438841
Generation of helper-free SIV-based *vectors*.
AUTHOR: Kim S S(a); Kothari N; Fan H
AUTHOR ADDRESS: (a)Dep. Molecular Biol. and Biochemistry, Univ. California at Irvine, Irvine, CA**USA
1997
JOURNAL: Journal of Investigative Medicine 45 (1):p85A 1997
CONFERENCE/MEETING: Meeting of the American Federation for Medical Research, Western Regional Carmel, California, USA February 5-8, 1997
ISSN: 1081-5589
RECORD TYPE: Citation

LANGUAGE: English

Generation of helper-free SIV-based *vectors*.
MISCELLANEOUS TERMS: ...HELPER-FREE SIMIAN IMMUNODEFICIENCY VIRUS-BASED *VECTORS*; ...

...HELPER-FREE SIV-BASED *VECTORS*; ...

...PNK1 *VECTOR* PLASMID...
...*REV* RESPONSE ELEMENT...

...VIRUS *INTERNAL* *RIBOSOME* *ENTRY* *SITE*;

12/3,K/6 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

10760095 EMBASE No: 2000238995
Type and position of promoter elements in *retroviral* *vectors* have substantial effects on the expression level of an enhanced green fluorescent protein reporter gene
Flasshove M.; Bardenheuer W.; Schneider A.; Hirsch G.; Bach P.; Bury C.; Moritz T.; Seeber S.; Opalka B.
M. Flasshove, Department of Internal Medicine, West German Cancer Center, University of Essen Medical School, Hufelandstrasse 55, 45122 Essen Germany
AUTHOR EMAIL: michael.flasshove@uni-essen.de
Journal of Cancer Research and Clinical Oncology (J. CANCER RES. CLIN. ONCOL.) (Germany) 2000, 126/7 (391-399)
CODEN: JCROD ISSN: 0171-5216
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 43

Type and position of promoter elements in *retroviral* *vectors* have substantial effects on the expression level of an enhanced green fluorescent protein reporter gene
Purpose: Although gene transfer with retrovital *vectors* has already been applied to patients as part of clinical protocols, low expression of transgenes in target cells still remains a problem. Therefore, we compared various *retroviral* *vectors* using different promoters and backbones for expression of the enhanced green fluorescent protein (EGFP) reporter gene in fibroblasts and CD34sup + cells. Methods: The N2A *retroviral* *vector* was used to test expression from the herpes simplex virus thymidine kinase promoter (*vector* N2A-TKEGFP), a human phosphoglycerate kinase promoter (*vector* N2A- PGK-EGFP), and the SV40 promoter (*vector* N2A-SV-EGFP). Additional constructs used the spleen focus-forming virus (*SFFV*) long terminal repeat (LTR) as promoter and expressed EGFP alone (*vector* SFbeta1-EGFP) or EGFP and a downstream (*vector* SFbeta1EGFP-*IRES*) or upstream (*vector* SFbeta1-*IRES*-EGFP) internal ribosomal entry site. Results: For NIH 3T3 cells the fluorescence- activated cell sorting analysis revealed that the most active internal promoter was the SV40 promoter in the *vector* N2A-SV-EGFP (mean fluorescence intensity, MFI, 66.7 +/- 0.4), followed by N2A-PGK-EGFP (26.3 +/- 1.8 MFI), and N2A-TK-EGFP (4.8 +/- 0.1 MFI). Expression from the SFbeta1-EGFP *vector* (82.6 +/- 6.7 MFI) and the SFbeta1-EGFP-*IRES* *vector* (102.8 +/- 6.2 MFI) was higher than from SFbeta1-*IRES*-EGFP *vector* (15.5 +/- 1.8 MFI). In human CD34-positive cells, the EGFP expression from all *vectors* was considerably lower than in fibroblasts with the SFbeta1-EGFP *vector* still being four- to fivefold more active than the internal promoters tested. Conclusion: The *SFFV* LTR seems to allow a high expression of transgenes, as long as the transgene is not expressed downstream of an internal ribosomal entry site. Internal...
MEDICAL DESCRIPTORS:
*virus *vector*; *cancer cell; *gene therapy

```
?ds

Set     Items   Description
S1        483   (TYPE (W) C (W) RETROVIRUS)
S2       1616   (IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
S3     212651   (VECTOR? OR (RETROVIRAL (W) VECTOR?))
S4          0   S1 AND S2 AND S3
S5          0   S1 AND S2
S6         14   S1 AND S3
S7          6   RD (unique items)
S8          0   (5' (W) (END OR LEADER))
S9          0   (5'-END) OR (5'-LEADER)
S10       433   S2 AND S3
S11        11   S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR MEELV
                  OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR GALV OR BAEV)
S12         6   RD (unique items)
?s s10 and (reticuloendotheliosis (w) virus)
             433  S10
            4605  RETICULOENDOTHELIOSIS
          990756  VIRUS
            1077  RETICULOENDOTHELIOSIS(W)VIRUS
     S13       6  S10 AND (RETICULOENDOTHELIOSIS (W) VIRUS)
?rd
...completed examining records
     S14       3  RD (unique items)
?t s14/3,k/all

 14/3,K/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

10091945   98043300
 Characterization of an internal ribosomal entry segment within the 5'
leader of avian *reticuloendotheliosis* *virus* type A RNA and development
of novel MLV-REV-based *retroviral* *vectors*.
  Lopez-Lastra M; Gabus C; Darlix JL
  LaboRetro,  Unite de Virologie Humaine INSERM U412,  Ecole Normale
Superieure de Lyon, France.
  Human gene therapy (UNITED STATES)  Nov 1 1997,  8 (16) p1855-65,  ISSN
1043-0342   Journal Code: A12
  Languages: ENGLISH
  Document type: JOURNAL ARTICLE

 Characterization of an internal ribosomal entry segment within the 5'
leader of avian *reticuloendotheliosis* *virus* type A RNA and development
of novel MLV-REV-based *retroviral* *vectors*.
  ... al.,  1995b). These data, together with structural homology studies
(Koning et al., 1992), prompted us to undertake a search for new internal
ribosome entry segment (*IRES*) of retroviral origin. Here we describe an
*IRES* element within the 5' leader of avian *reticuloendotheliosis*
*virus* type A (REV-A) genomic RNA. Data show that the REV-A 5' *IRES*
element maps downstream of the packaging/dimerization (E/DLS) sequence
(Watanabe and Temin, 1982; Darlix et al., 1992) and the minimal *IRES*
sequence appears to be within a 129 nt fragment (nucleotides 452-580) of
the 5' leader, immediately upstream of the gag AUG codon. The REV-A *IRES*
has been successfully utilized in the construction of novel high titer
MLV-based *retroviral* *vectors*, containing one or more *IRES* elements of
retroviral origin. These retroviral constructs, which represent a starting
point for the design of novel *vectors* suitable for gene therapy, are also
of interest as a model system of internal translation initiation and its
possible regulation during development, cancer, or virus...
  Descriptors: Genetic *Vectors*--Genetics--GE; *Leukemia Viruses, Murine
--Genetics--GE;  **Reticuloendotheliosis*  *Virus*, Avian--Genetics--GE;
*RNA, Viral--Genetics--GE; *Transfection; *Translation, Genetic
  Chemical Name: Kanamycin Kinase; (Alkaline Phosphatase; (Endopeptidases;
(leader proteinase, foot-and-mouth disease virus; (Genetic *Vectors*;
```

(Polyenes; (Recombinant Proteins; (RNA, recombinant; (RNA, Messenger; (RNA, Viral; (Sirolimus; (RNA

14/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10057708 99412355
Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of *retroviral* *vectors*.
Lopez-Lastra M; Ulrici S; Gabus C; Darlix JL
Labo Retro, Unite de Virologie Humaine-U412, Institut National de la Sante et de la Recherche Medicale, Ecole Normale Superieure de Lyon, 69364 Lyon cedex 07, France.
Journal of virology (UNITED STATES) Oct 1999, 73 (10) p8393-402, ISSN 0022-538X Journal Code: KCV
Languages: ENGLISH
Document type: JOURNAL ARTICLE

Identification of an internal ribosome entry segment in the 5' region of the mouse VL30 retrotransposon and its use in the development of *retroviral* *vectors*.
... in cell culture. In this study, we addressed whether the 5' region of VL30m could replace the 5' leader of MoMLV functionally in a recombinant *vector* construct. Our data confirm that the putative packaging sequence of VL30 is located within the 5' region (nucleotides 362 to 1149 with respect to the cap structure) and that it can replace the packaging sequence of MoMLV. We also show that VL30m contains an internal ribosome entry segment (*IRES*) in the 5' region, as do MoMLV, Friend murine leukemia virus, Harvey murine sarcoma virus, and avian *reticuloendotheliosis* *virus* type A. Our data show that both the packaging and *IRES* functions of the 5' region of VL30m RNA can be efficiently used to develop retrotransposon-based *vectors*.
Descriptors: Genetic *Vectors*; *Retroelements--Genetics--GE; *Retroviridae--Genetics--GE; *RNA, Viral--Genetics--GE
Chemical Name: Genetic *Vectors*; (Retroelements; (RNA, Viral

14/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07378154 92124741
A spleen necrosis virus-based *retroviral* *vector* which expresses two genes from a dicistronic mRNA.
Koo HM; Brown AM; Kaufman RJ; Prorock CM; Ron Y; Dougherty JP
Department of Molecular Genetics and Microbiology, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, Piscataway 08854-5635.
Virology (UNITED STATES) Feb 1992, 186 (2) p669-75, ISSN 0042-6822 Journal Code: XEA
Contract/Grant No.: CA50777, CA, NCI; CA16599, CA, NCI; CA47207, CA, NCI
Languages: ENGLISH
Document type: JOURNAL ARTICLE

A spleen necrosis virus-based *retroviral* *vector* which expresses two genes from a dicistronic mRNA.
We have investigated a novel strategy for coexpressing two genes from a *retroviral* *vector*. The 5' nontranslated leader region of at least some picornavirus RNAs contains a sequence that can act as an *internal* *ribosome* *entry* *site* allowing initiation of translation at a downstream AUG codon in a 5' cap-independent manner. To investigate whether such a sequence can function in the context of a *retroviral* *vector*, we constructed a spleen necrosis virus-based *vector* carrying two selectable

marker genes separated by the leader region of encephalomyocarditis virus. This *vector* was genetically stable and efficiently expressed both markers from a single dicistronic transcript. Since the expression of two genes by other strategies in *retroviral* *vectors* can often be problematic, these results offer a promising new approach for the design of "double gene" *retroviral* *vectors*.

Descriptors: Genes, Viral; *Genetic *Vectors*; **Reticuloendotheliosis* *Virus*, Avian--Genetics--GE; *RNA, Messenger--Genetics--GE; *RNA, Viral --Genetics--GE

?ds

Set	Items	Description
S1	483	(TYPE (W) C (W) RETROVIRUS)
S2	1616	(IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
S3	212651	(VECTOR? OR (RETROVIRAL (W) VECTOR?))
S4	0	S1 AND S2 AND S3
S5	0	S1 AND S2
S6	14	S1 AND S3
S7	6	RD (unique items)
S8	0	(5' (W) (END OR LEADER))
S9	0	(5'-END) OR (5'-LEADER)
S10	433	S2 AND S3
S11	11	S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR MEELV OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR GALV OR BAEV)
S12	6	RD (unique items)
S13	6	S10 AND (RETICULOENDOTHELIOSIS (W) VIRUS)
S14	3	RD (unique items)

?

PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES

?s s10 and (VL30-type (w) retrotransposon)

	433	S10
	0	VL30-TYPE
	2437	RETROTRANSPOSON
	0	VL30-TYPE(W)RETROTRANSPOSON
S15	0	S10 AND (VL30-TYPE (W) RETROTRANSPOSON)

?s s10 and (VL30 (w) retrotransposon)

	433	S10
	316	VL30
	2437	RETROTRANSPOSON
	31	VL30(W)RETROTRANSPOSON
S16	3	S10 AND (VL30 (W) RETROTRANSPOSON)

?rd

...completed examining records

S17	1	RD (unique items)

?t s17/3,k/all

17/3,K/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

10057708 99412355

Identification of an internal ribosome entry segment in the 5' region of the mouse *VL30* *retrotransposon* and its use in the development of *retroviral* *vectors*.

Lopez-Lastra M; Ulrici S; Gabus C; Darlix JL

Labo Retro, Unite de Virologie Humaine-U412, Institut National de la Sante et de la Recherche Medicale, Ecole Normale Superieure de Lyon, 69364 Lyon cedex 07, France.

Journal of virology (UNITED STATES) Oct 1999, 73 (10) p8393-402, ISSN 0022-538X Journal Code: KCV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Identification of an internal ribosome entry segment in the 5' region of the mouse *VL30* *retrotransposon* and its use in the development of *retroviral* *vectors*.

... in cell culture. In this study, we addressed whether the 5' region of VL30m could replace the 5' leader of MoMLV functionally in a recombinant *vector* construct. Our data confirm that the putative packaging sequence of VL30 is located within the 5' region (nucleotides 362 to 1149 with respect to the cap structure) and that it can replace the packaging sequence of MoMLV. We also show that VL30m contains an internal ribosome entry segment (*IRES*) in the 5' region, as do MoMLV, Friend murine leukemia virus, Harvey murine sarcoma virus, and avian reticuloendotheliosis virus type A. Our data show that both the packaging and *IRES* functions of the 5' region of VL30m RNA can be efficiently used to develop retrotransposon-based *vectors*.
Descriptors: Genetic *Vectors*; *Retroelements--Genetics--GE; *Retroviridae--Genetics--GE; *RNA, Viral--Genetics--GE
Chemical Name: Genetic *Vectors*; (Retroelements; (RNA, Viral
?ds

Set	Items	Description
S1	483	(TYPE (W) C (W) RETROVIRUS)
S2	1616	(IRES OR (INTERNAL (W) RIBOSOME (W) ENTRY (W) SITE))
S3	212651	(VECTOR? OR (RETROVIRAL (W) VECTOR?))
S4	0	S1 AND S2 AND S3
S5	0	S1 AND S2
S6	14	S1 AND S3
S7	6	RD (unique items)
S8	0	(5' (W) (END OR LEADER))
S9	0	(5'-END) OR (5'-LEADER)
S10	433	S2 AND S3
S11	11	S10 AND (REV OR MSV OR MHV OR MEV OR FMOV OR AMLV OR MEELV OR SFFV OR RASV OR FLV OR FSV OR EFLV OR SSV OR GALV OR BAEV)
S12	6	RD (unique items)
S13	6	S10 AND (RETICULOENDOTHELIOSIS (W) VIRUS)
S14	3	RD (unique items)
S15	0	S10 AND (VL30-TYPE (W) RETROTRANSPOSON)
S16	3	S10 AND (VL30 (W) RETROTRANSPOSON)
S17	1	RD (unique items)

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$2.40 12 Type(s) in Format 3
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$2.35 1 Types
$10.11 Estimated cost File73
OneSearch, 3 files, 2.467 DialUnits FileOS
$1.50 TYMNET
$25.87 Estimated cost this search
$26.28 Estimated total session cost 2.582 DialUnits

Status: Signed Off. (30 minutes)